



World Utilities  
Congress



Host

27 - 29 MAY 2025 | ABU DHABI, UNITED ARAB EMIRATES

# STRATEGIC CONFERENCE BROCHURE



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“

Although progress has been made in addressing the impact of climate change, a lot more needs to be done if the global community is to achieve a successful energy transition and deliver on the commitment of tripling global renewables capacity by 2030. We want the World Utilities Congress to be a place where we can foster that spirit of collaboration and be a catalyst for progress in shaping the sector for the years ahead. ”

Jasim Thabet

Group CEO & MD





# Innovating for a new age of utilities

The World Utilities Congress will bring together government leaders, policymakers, industry leaders and innovators to advance the dialogue around transforming the global utilities sector to meet rapidly rising electricity demand with cleaner, lower carbon power supply; shaping critical sustainable water strategies; amplifying the efficiencies created by AI and technology solutions and balancing record investments in power utilities with access to affordable, reliable energy access for all. To deliver energy transition goals in the timeframe needed, collective action is required from all stakeholder groups driving transformation and unlocking the power of innovation.



# Join the Premier Platform Driving the Transformation of the Utilities Sector

The World Utilities Congress, taking place in Abu Dhabi from **27-29 May 2025**, is a premier platform for global energy leaders, policymakers, and innovators to address key challenges in the power and water utilities sector. As the industry advances toward decarbonisation and sustainability, the event fosters high-level discussions, showcases cutting-edge solutions, and drives strategic collaborations.

**The congress offers unmatched networking opportunities, connecting industry executives, policymakers, and solution providers to foster partnerships, explore investments, and shape the future of global utilities.**

## Event in Numbers

**18,000+**

Exhibition Attendees

**20,000 M<sup>2</sup>+**

Exhibition Space

**500+**

Conference Speakers

**120+**

Conference Sessions

**1,400**

Conference Delegates

**110+**

Participating Countries



# Conferences Overview

The conferences at World Utilities Congress foster the strategic insights and technical expertise needed for power and water utilities to deliver the low-carbon systems of tomorrow. Across 3 days, the conferences will convene Ministers, CEOs, academics, and industry influencers to address the critical challenges and discuss the possibilities and opportunities for a net zero utilities sector of the future.



## Strategic Conference

Cross-sector collaboration is essential to drive forward the transformation of power and water utilities. This conference will convene global policymakers and industry leaders to discuss pivotal trends and actionable strategies shaping the future of utilities, with a focus on scalable impact and efficiency.



## Technical Conference

To address the energy transition, we need the brightest minds and technical experts at the table. This conference will surface the voices of industry experts as they share knowledge and research insights and unveil the latest developments across energy, water, and utilities.



## Leadership Roundtables

Gathering stakeholders – from Ministers and policy makers to CEOs and scientists – these roundtable discussions offer an exclusive setting for collaborative problem-solving on financing, governance, and sustainability, fostering a strategic dialogue that supports transformation and progress across the sector.



## Innovation Theatres

A platform for visionary thinkers and technology pioneers to present transformative solutions for the utilities sector. Through live demonstrations and interactive sessions, participants will experience firsthand the latest advancements in smart infrastructure, digital integration, and sustainable practices.



# Strategic Conference Overview

The global utilities sector is at a defining moment, facing the dual challenge of meeting rising electricity demand while accelerating the transition to a low-carbon future. The integration of renewable energy is no longer optional, it is essential to ensuring a sustainable and resilient energy system. At the same time, digital transformation and smart infrastructure are revolutionising grid management and customer engagement, while the critical interdependence between water and energy continues to shape sustainability strategies worldwide. With energy production accounting for a significant share of global freshwater use, and water security reliant on a stable power supply, the need for innovative solutions has never been greater.

To achieve net zero goals, power generation must be transformed through renewable energy sources like solar and wind. The IEA forecasts global electricity demand growth of 3.4% annually through 2026. As a result, electricity's share of final energy consumption is set to jump from 20% today to over 50% by 2050, driven by rapid electrification in end-use sectors. However, over 60% of global electricity generation still relies on unabated fossil fuels. To meet the IEA's net zero emissions target by 2050, this share must decline significantly to less than 30% by 2030. Moreover, annual investment in renewable capacity must triple from US \$570 billion in 2023 to US \$1.5 trillion every year between 2024 and 2030, according to IRENA. Today, around 48% of the planned and committed investment will focus on grid infrastructure development enabling the addition, or upgrade, of 80 million kilometers of grids and potentially tripling renewable energy capacity by 2040.





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# Themes in Focus



## **Building a more accessible, affordable and sustainable power system**

Demand for electricity is soaring. Disruptive new power-hungry data centres, the electrification of transport, heating and cooling, and the push to advance energy access in line with Sustainable Development Goal 7, is fuelling unprecedented global electricity demand growth. As we enter the age of electricity, it is critical that power systems remain affordable, secure and sustainable – requiring unprecedented levels of cooperation between policy makers, regulators, utilities, technology providers and financial institutions.



## **Putting water at the heart of energy and climate adaptation plans**

Water scarcity is a global crisis that is set to grow both in terms of severity and in people affected by it. In many parts of the world, demand for water already exceeds supply and by 2030, the gap between supply and demand is projected to reach close to 40% globally. Utilities, governments, NGOs, academia, and the private sector all have a key role to play in developing and scaling the solutions needed to close the gap and safeguard the water needed to allow people, communities and economies to thrive as our climate changes.



## **Unlocking the potential of AI and clean technologies**

AI presents a unique opportunity to transform the power sector, enhancing efficiency, optimising grids, and accelerating the transition to net zero. As such, it has increasingly become a central pillar of the sector's innovation agenda offering a pathway to a smarter, more resilient energy system. However, AI's rising electricity demands from data centres, requires urgent adaptation. Power systems must expand renewable capacity, improve grid flexibility, and enhance flexibility at a speed and scale unprecedented in recent times. Coordinated action from governments, businesses, and markets is essential to harness AI's potential while ensuring a sustainable, resilient, and equitable energy future.





## **Prioritising flexibility solutions for more resilient energy**

As power generation becomes increasingly dominated by renewables, the need for flexibility solutions grows. According to IRENA, in a 2050 net-zero energy system solar and wind account for 90% of generation, making flexibility on both the supply and demand sides central to maintaining a stable, responsive, and resilient grid. Gas, battery storage, grid interconnections, and demand response are among the tools available. Careful and strategic system planning is essential to ensure flexibility options are optimised and tailored to geographic contexts.



## **Adopting strategic capital reallocation and innovative financing models**

Driving sustainable growth in utilities hinges on innovative financing and strategic investment. Models like green bonds and public-private partnerships are vital for funding clean energy supply, resilient water systems, and grid modernisation. Global grid spending is set to reach \$811 billion by 2030 in Bloomberg NEF's net zero scenario, driven by rapid growth in clean power, electric vehicles and other low-carbon technologies. Emerging strategies may include innovative project financing and development, and climate finance mechanisms as well as the integration of digital solutions and even fintech to secure the required finance.



## **Shaping policies and partnerships for the future of utilities**

Achieving a low-carbon, interconnected energy future demands urgent action and bold innovation across the sector. Rapid demand growth is accelerating the pace of change for utilities, while decarbonisation goals and the expansion of clean energy are reshaping traditional system management. The way utility companies engage with policymakers, suppliers, customers and with each other, has transformed dramatically in the last decade. Platforms like the Utilities for Net Zero Alliance (UNEZA), launched under the UAE's COP28 Presidency in 2023, are an example of the need for utilities to embrace a new era of collaboration and engagement with all stakeholders as the sector navigates a transformative new era.

# Session Formats

The World Utilities Congress 2025 programme will include the following formats

## Ministerial Panels

Global ministers, policymakers, and utility leaders will share insights into how policy frameworks are enhancing energy security, advancing the energy transition, addressing geopolitical challenges, and fostering international collaboration to shape the future of utilities and energy systems.

## Global Leadership Panels

Panel discussions featuring global utility and energy leaders will bring together diverse perspectives to explore the latest strategies, policies, and technologies driving innovation, sustainability, and resilience across the energy and utilities ecosystem.

## Energy Talks

20-minute fireside chats offering exclusive insights from top utility and energy executives as they address challenges and opportunities in leading the global transition toward sustainable, low-carbon utility systems.

## Industry Dialogues

30-minute discussions on near-term challenges and opportunities that will pave the way for long-term action.

## Leadership Roundtables

At these invitation-only sessions, key decision-makers shaping the future of a responsible and sustainable utilities industry will participate in focused discussions. Aiming to convert strategies into actionable steps, these roundtables promote collaboration, drive meaningful outcomes, and transform commitments into measurable progress.

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**USD \$1,599**

Ends on 31st March

STANDARD

**USD \$1,999**

Ends on 26th May

ONSITE

**USD \$2,399**

Valid from 27-29 May

# Strategic Sessions at a Glance



## CONFERENCE HALL A

### TUESDAY, 27 MAY 2025

**10:00 - 10:45**  
**PRIVATE VIP EXHIBITION TOUR**

**11:00 - 11:30**  
**OPENING CEREMONY**  
(By Invitation Only)

**11:30 - 12:00**  
**MINISTERIAL PANEL**  
Looking ahead to COP30: Strengthening the role of energy in updated national plans

**12:00 - 12:15**  
**ENERGY TALK**  
Shifting policies and energy transition: immediate and future impacts

**12:15 - 12:35**  
**ENERGY TALK**  
Capital strategies for energy investment: driving long-term growth

**12:35 - 12:50**  
**ENERGY TALK**  
Humanising the energy transition: a call for inclusive and pragmatic action

**12:50 - 13:30**  
**GLOBAL LEADERSHIP PANEL**  
Global power outlook: are we on track for 2030?

**14:00 - 14:45**  
**MINISTERIAL PANEL**  
Shaping the future of utilities: balancing energy access and growth in emerging economies

**14:45 - 15:30**  
**GLOBAL LEADERSHIP PANEL**  
From generation to demand: powering the flexibility revolution

**15:30 - 16:00**  
**INDUSTRY DIALOGUE**  
Transforming water security into opportunities through sustainable, and circular management strategies

**16:00-16:15**  
**ENERGY TALK**  
The power couple – AI and energy: transforming the future of power systems

**16:15 - 17:00**  
**GLOBAL LEADERSHIP PANEL**  
Road to a new world of power interconnectivity

### WEDNESDAY, 28 MAY 2025

**10:00 - 10:45**  
**MINISTERIAL PANEL**  
Securing water access across borders

**10:45 - 11:00**  
**ENERGY TALK**  
Global energy by 2030

**11:00 - 11:45**  
**GLOBAL LEADERSHIP PANEL**  
Realising the ambition: tripling global nuclear energy capacity by 2050

**11:45 - 12:30**  
**GLOBAL LEADERSHIP PANEL**  
Advancing the desalination agenda, towards water security

**12:30 - 13:15**  
**GLOBAL LEADERSHIP PANEL**  
Is standardisation a pathway to resilient clean energy supply chains?

**14:00 - 14:30**  
**INDUSTRY DIALOGUE**  
Powering a customer-first utility

**14:30 - 15:00**  
**INDUSTRY DIALOGUE**  
Natural gas: evolving its role from energy transition to a low carbon energy future

**15:00 - 15:30**  
**INDUSTRY DIALOGUE**  
Maximising the potential of generative AI for power sector organisations

**15:30 - 16:00**  
**INDUSTRY DIALOGUE**  
The next frontier: revolutionising water infrastructure with smart innovation and collaboration

**16:00 - 16:30**  
**INDUSTRY DIALOGUE**  
Low carbon and green hydrogen: navigating challenges to open opportunities

**16:30 - 17:00**  
**INDUSTRY DIALOGUE**  
Amplifying the impact of energy efficiency, the first fuel in energy transition

### THURSDAY, 29 MAY 2025

**10:00 - 10:45**  
**GLOBAL LEADERSHIP PANEL**  
Redefining the future of the water-energy-food nexus through technology advances

**10:45 - 11:30**  
**GLOBAL LEADERSHIP PANEL**  
Catalysing clean energy finance and investment to deliver energy transition at a global scale

**11:30 - 12:00**  
**INDUSTRY DIALOGUE**  
Driving scale and responsible growth in carbon markets

**12:00 - 12:45**  
**GLOBAL LEADERSHIP PANEL**  
Revolutionising urban living: solutions for creating sustainable, low-carbon cities

**14:00 - 14:45**  
**GLOBAL LEADERSHIP PANEL**  
From concept to commercialisation: achieving scale in climatetech

**14:45 - 15:30**  
**GLOBAL LEADERSHIP PANEL**  
Critical minerals: the key to energy transition or a pending bottleneck

**15:30 - 16:00**  
**INDUSTRY DIALOGUE**  
Navigating the energy sector's talent transition



# Strategic Conference Speakers

Global CEOs and industry thought leaders speaking at the World Utilities Congress 2025



**H.E. Suhail Bin  
Mohamed Al Mazrouei**  
Minister of Energy and  
Infrastructure  
UAE



**H.E. Dr. Abdulla  
Humaid Saif Al Jarwan**  
Chairman of the  
Department of Energy  
UAE



**H.E. Alexandre Silveira**  
Minister of Mines and  
Energy  
Brazil



**H.E. Yaser bin Ebrahim  
Humaidan**  
Minister of Electricity and  
Water Affairs  
Kingdom of Bahrain



**Jasim Thabet**  
Group CEO & MD  
TAQA



**H.E. Majid Al Suwaidi**  
CEO  
Alterra



**Luc Remont**  
CEO & President  
EDF Group



**Benjamin Backwell**  
CEO  
Global Wind Energy  
Council (GWEC)



**Fabrizio Fabbri**  
Group CEO  
Ansaldo Energia



**Logiso Tyabashe**  
Group CEO  
South African Nuclear  
Energy Corporation  
(Necsa)



**Branislav Strcyek**  
CEO & Chairman of the  
Board  
Slovenské elektrárne (SE)



**Farid Al Awlaqi**  
CEO  
TAQA Generation



**Sylvie Jehanno**  
CEO  
Dalkia



**J.D. Siltton**  
CEO  
CTC Global



**Dr. Sama Bilbao y León**  
Director General  
World Nuclear  
Association (WNA)



**Khalid Al Marzooqi**  
CEO  
Tabreed



**Omar Al Hashmi**  
CEO  
TAQA Distribution



**Béatrice Buffon**  
Chairman & CEO  
EDF Renewables



**Dr. Afif Al Yafei**  
CEO  
TAQA Transmission



**Manuel Manjon**  
CEO, Water Business  
Acciona



**Eng. Ahmed AlShamsi**  
CEO  
TAQA Water Solutions



**Christer Viktorsson**  
Director General  
Federal Authority for  
Nuclear Regulation



**Khalid Al Qubaisi**  
CEO  
TAQA Energy Services



**Mark Blackwell**  
CEO  
Apex Investments



**Adri Pols**  
CEO  
Desolenator



**Noel Aoun**  
Group Chief Strategy  
Officer  
TAQA Group



**Jan Lozek**  
MD and Co-Founder  
Future Energy Ventures



**Adam Ridgway**  
Founder & CEO  
One moto



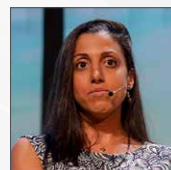
**Hebah Abbas**  
Chairwoman  
Kuwait Water  
Association



**Dr. Nader Assad Bin  
Taher**  
COO  
TAQA Water Solutions



**Antonio Di Cecca**  
COO  
Tabreed



**Lina Osman**  
MD & Head, Sustainable  
Finance – MENAP &  
Africa  
Standard Chartered



**Dr. Mike Roshchin**  
Head of AI  
AIQ



**Ezzeddine Jradi**  
Chief Transformation  
& Business Excellence  
Officer  
Emicool



**Rizwan Razaq**  
CTO, Smart PV & ESS  
Business  
Huawei



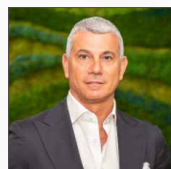
**Jon Ball**  
President - eVinci  
Microreactor Business  
Westinghouse Electric  
Company



**Neil Wilmshurst**  
SVP, Chief Nuclear  
Strategy Officer & MD  
EPRI Gulf



**Joel Austin**  
SVP & Chief Digital  
Officer  
Oncor Electric Delivery



**Maurizio De Stefano**  
SVP Energy International  
Minsait



**Thomas Soulas**  
VP Technology  
Development, Innovation  
Center Abu Dhabi  
Siemens Energy



**Bruce Smith**  
Executive Director, Strategy  
and Planning  
Emirates Water and  
Electricity Company (EWEC)



**Semih Ozkan**  
Executive Director, EMEA -  
Energy, Power, Renewables,  
Metals & Mining  
JP Morgan Chase Bank



**Dr. Hamad Odhabi**  
Vice Chancellor for AI &  
Operational Excellence  
Abu Dhabi University



**Gino Hernandez**  
Head of Global Digital  
Business  
ABB Energy Industries



**Alexandre Eykerman**  
MD and Energy Business  
Director  
Wartsila



**Jaehyang So**  
Chair - Technical  
Committee  
Global Water  
Partnership



**Will Fargher**  
Director - Global Water  
Practice  
Ricardo plc



**Suhail Diaz**  
President - Future Energy  
Wood



**Hara Sidiropoulou**  
Partner, Power & Utilities  
EY Parthenon (Strategy)

# Tuesday, 27 May 2025

 **CONFERENCE HALL A**

**Topics in Focus: Power generation, Policy, Renewables, Water, Finance & Energy Transition**

**10:00 - 10:45 Private VIP Exhibition Tour**

**11:00 – 11:30 Opening Ceremony (By invitation only)**

The World Utilities Congress 2025 Opening Ceremony will bring together global energy leaders, innovators, and policymakers to set the stage for three days of impactful discussions. It will serve as a platform for addressing the sector's dual challenge of meeting rising electricity demand while accelerating the transition to a low-carbon future. With growing demand, the critical interdependence between water security and energy production intensifies, highlighting the need for sustainable resource management and climate resilience. Achieving these goals requires collective action to drive transformation and unlock the full potential of innovation.

**11:30 - 12:00 Looking ahead to COP30: strengthening the role of energy in updated national plans**

## Ministerial Panel

COP29 was a turning point in climate action. It set ambitious finance goals and needed to deliver clean energy transitions for all economies. It set bold finance goals and aimed to deliver clean energy transitions for all economies. A target of \$300 billion each year has been set to help vulnerable nations build resilience, expand energy access, and promote sustainable development. Looking forward, leaders in the energy sector and policymakers must join forces. They need to raise the ambition of the next Nationally Determined Contributions (NDCs) before COP30. To limit climate change impacts, NDC creators should maximise their technical ambitions. This means setting bolder targets and aligning them with national policies. Stronger NDCs can guide national climate action and speed up the global shift to clean energy technologies. What opportunities and challenges lie ahead? What role can the energy sector play in inspiring more ambitious targets?

## Attendee Insights:

Explore the implications of the 2025 NDC updates for the sector, including lessons learned from previous rounds and their role in advancing towards a low-carbon future. Gain insights into new expectations, challenges, and strategies to align with the 1.5°C target.

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## 12:00 – 12:15 **Shifting policies and energy transition: immediate and future impacts**

### **Energy Talk**

The US has emerged as a global leader in decarbonisation, driven by generous investment incentives. However, recent political changes signal shifting policy priorities, raising concerns about reduced support for low-carbon initiatives. Potential cuts to EV incentives, slowed progress in green hydrogen and CCUS, and expanded fossil fuel generation could reshape the energy landscape. How will these changes impact investors, technology developers, and the broader energy transition?

#### **Attendee insights:**

Gain expert insights into how shifting US policies could reshape low-carbon investments, technology development, and energy markets. Explore strategies for navigating policy uncertainty and ensuring long-term resilience in the energy transition.

## 12:15 – 12:35 **Capital strategies for energy investment: driving long-term growth**

### **Energy Talk**

As global targets push to triple renewable energy capacity and double energy efficiency by 2030, securing sustainable finance has never been more critical. Recalibrating the global energy system presents both challenges and opportunities for stakeholders. Collaboration across investor types—private equity, multilateral institutions, and public funds—is essential to mobilise capital at scale. How can sustainable finance be de-risked to attract more investment and support energy transition efforts in both developed and developing markets? The UAE recognises the need for bold climate investments and sees this shift as a catalyst for economic growth. Its commitment includes bridging the financing gap through sustainable financing by UAE banks by 2030 and contributions to the International Monetary Fund's Resilience and Sustainability Trust to support climate-vulnerable nations.

#### **Attendee insights:**

Explore how innovative financial structures can unlock investment for climate action, expand concessional financing, and enhance private sector participation. Gain insights into the evolving role of multilateral development banks in mobilising resources for national climate commitments.

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## 12:35 - 12:50 Humanising the energy transition: a call for inclusive and pragmatic action

### Energy Talk

The global energy transition narrative has long been dominated by discussions on technology and investment, but true progress requires placing people at the center of the conversation. The transition is not just about deploying renewables and scaling infrastructure—it's about wider and wiser energy use, ensuring affordability, and addressing the real-world needs of communities.

As climate change accelerates, adaptation must go hand in hand with mitigation. Achieving net zero CO<sub>2</sub> emissions by 2050 demands more than just policy commitments—it requires broader collaboration and inclusive leadership to drive a faster, fairer, and more impactful transition. It is also necessary to engage energy users, moving beyond a supply-centric approach to one that reflects diverse regional realities and multiple pathways to sustainability.

#### Attendee insights:

Gain insights into human-centered strategies for a fair and inclusive energy transition, focusing on community needs and diverse regional approaches. The session will highlight the importance of collaboration and inclusive leadership in achieving net-zero emissions by 2050.

## 12:50 - 13:30 Global power outlook: are we on track for 2030?

### Global Leadership Panel

The global energy landscape is evolving rapidly with ambitious climate targets and technological advancements. As we look ahead, a key question remains: Are we on track to meet our 2030 goals? To limit global temperature rise to 1.5°C, we must reduce CO<sub>2</sub> emissions by nearly 50% from 2019 levels, with a significant portion coming from the energy sector. IRENA (2024) outlines that achieving this target requires tripling renewable energy capacity, doubling energy efficiency, and scaling energy grids and flexibility solutions, demanding an annual investment of USD 717 billion. Global energy storage must also increase six-fold by 2030, reaching 1,500 GW. AI has a critical role to play in optimising energy efficiency, managing demand growth, and accelerating the transition. The IEA Net Zero by 2050 roadmap indicates that nuclear energy will nearly double its share by 2050, with annual capacity additions reaching 30 GW in the 2030s. Failing to act on nuclear power risks escalating net-zero costs and adds to the risk of not meeting the goal.

#### Attendee insights:

Gain insights into the urgent actions needed to meet 2030 energy goals, with a focus on scaling renewable energy, energy storage, and nuclear power. Discussions will also explore how AI can optimise the energy transition and mitigate risks to achieving net-zero emissions.

## 13:00 – 14:00 Lunch & Networking

 **Delegate Lunch Area, Hall 3**

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14:00 - 14:45

### Shaping the future of utilities: balancing energy access and growth in emerging economies

#### Ministerial Panel

Our climate future largely depends on whether Emerging Markets and Developing Economies (EMDEs) can successfully transition to cleaner energy systems while ensuring energy access for all. The IEA's Clean Energy Transitions Programme turns targets into action, accelerating progress towards the goal of global net zero emissions through secure and people-centered clean energy transitions, focusing on major emerging and developing economies. In developing countries utilities struggle to meet growing power demands and integrate renewable energy sources into their grids, a necessity for achieving universal access to clean, reliable, and affordable electricity for all. However, these regions attract only a fifth of global clean energy investments due to higher real and perceived risks, including political instability, regulatory barriers, unreliable off-taker arrangements, foreign currency volatility, and grid integration issues. These risks drive up the cost of capital, constraining financial flows and hindering socio-economic development. Supportive policies and international collaboration are crucial to overcoming financial constraints and fostering sustainable growth. By prioritising energy security, environmental responsibility, and economic development, emerging economies can build resilient, competitive utility sectors that align with global sustainability goals.

#### Attendee insights:

Explore how emerging markets can balance energy security, environmental stewardship, and economic growth to maintain competitiveness in global utilities.

14:45 – 15:30

### From generation to demand: powering the flexibility revolution

#### Global Leadership Panel

The energy sector is on the brink of a flexibility revolution, where the ability to adapt, respond, and optimise will redefine the entire power value chain—from generation to demand. Flexibility is no longer an option but a necessity. By 2050, energy storage is expected to meet over 50% of global flexibility needs, while \$21 trillion (WEF) in grid upgrades will be essential for modernising infrastructure. Demand response is shifting from a passive adjustment to an AI-driven, real-time balancing tool, empowering consumers to actively shape grid stability. Hydrogen and advanced storage technologies will lead the long-duration energy transition, while natural gas remains a key stabiliser. The future hinges on overcoming interconnection bottlenecks, accelerating digitalisation, and fostering cross-border collaboration, paving the way for a more responsive, resilient, and sustainable energy system.

#### Attendee insights:

Gain a forward-looking perspective on how flexibility innovations; from AI-driven demand response to advanced storage and hydrogen are transforming the energy landscape, ensuring a smarter, more resilient, and future-ready grid.

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**15:30 – 16:00**

## **Transforming water scarcity into opportunities through sustainable, and circular management strategies**

### **Industry Dialogue**

Water scarcity presents both a challenge and an opportunity to redefine how we manage our most vital resource. Sustainable and circular water management strategies are paving the way for transformative solutions, focusing on water conservation, efficient resource management, and supply enhancement. Innovative practices such as water recycling and reuse are gaining traction across residential, commercial, industrial, and construction sectors. Onsite water reuse systems are significantly reducing water consumption, while businesses and large-scale construction projects are incorporating recycling solutions to meet environmental goals and reduce operational costs. In the energy sector, power plants are minimising freshwater withdrawals by adopting water reuse, enhancing climate resilience and the sustainability of energy production. Efficient resource management and these forward-thinking practices are reducing the strain on infrastructure, increasing climate resilience, and delivering long-term economic benefits.

### **Attendee insights:**

Industry experts will share actionable insights into how sustainable water management practices are shaping the future. Discover innovative strategies to conserve water, enhance resource efficiency, and build resilient systems that align with your sustainability goals.

**16:00 – 16:15**

## **The power couple – AI and energy: transforming the future of power systems**

### **Energy Talk**

Energy companies are uniquely positioned to lead in applying AI advancements due to their strong foundation in data, analytics, and engineering. However, as AI becomes essential for managing the growing complexity of energy systems, it also presents a significant challenge: AI itself consumes vast amounts of energy. As energy transition introduces more renewable generation and regulatory changes, AI is becoming essential for managing the growing complexity of energy systems. Companies are already leveraging machine learning to enhance operational efficiencies, with documented performance improvements of 10%-25%. How can AI help the energy sector navigate the volatility of intermittent renewables, evolving regulations, and the need for reliable energy supply? What are the strategies for balancing centralised AI innovation with edge solutions, fostering open collaboration while protecting proprietary technologies, and achieving both incremental and transformative gains?

### **Attendee insights:**

Discover how AI is revolutionising energy systems by enhancing grid stability, optimising operations, and accelerating innovation. Gain insights into balancing centralised and edge AI solutions while fostering collaboration in a rapidly evolving energy landscape.

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# Tuesday, 27 May 2025

📍 CONFERENCE HALL A

16:15 - 17:00

Road to a new world of power interconnectivity

## Global Leadership Panel

As the global energy landscape shifts toward a cleaner and more resilient future, power interconnectivity is becoming the backbone of this transition. Modernised, interconnected grids enable seamless cross-border energy flows, ensuring the efficient integration of renewable sources while enhancing reliability and reducing transmission losses. With global grid investments projected to reach \$2 trillion over the next decade (IEA), utilities must navigate rising costs, regulatory complexities, and infrastructure expansion to unlock the full potential of interconnection. Leveraging Distributed Energy Resources (DERs) and smart grid technologies will be critical in optimising energy flows, improving efficiency, and fortifying grid resilience. However, challenges such as transmission bottlenecks, lengthy interconnection queues, and the need for enhanced cross-border collaboration must be addressed to create a truly integrated energy system; one that delivers stability, affordability, and sustainability for the future.

### Attendee insights:

Discover how advanced grid interconnectivity is reshaping the future of energy; unlocking seamless cross-border power flows, enhancing renewable integration, and driving a resilient, efficient, and sustainable global energy network.



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**Topics in focus: Water, Nuclear, Hydrogen, AI & Technology Integration**

## **10:00 - 10:45    Securing water access across borders**

### **Ministerial Panel**

The global water crisis is escalating, with 153 countries relying on transboundary waters, yet only 28% of these countries have effective agreements to co-manage these vital resources, according to a UNESCO and UNECE report. As climate change worsens water scarcity and competition for freshwater resources increases, cooperation among nations sharing water bodies becomes crucial. Countries sharing rivers and lakes show higher levels of cooperation, while areas like sub-Saharan Africa have made significant progress in recent years. The Water Convention, adopted in 1992, and innovative strategies such as Integrated Water Resource Management (IWRM) can provide essential frameworks for joint management. For government and utility leaders, investing in infrastructure and technology, such as real-time data sharing, is key to enhancing cross-border water access and ensuring the sustainable management of these critical resources.

#### **Attendee insights:**

Global ministers and leaders will discuss successful strategies, share valuable experiences, and engage in meaningful dialogue to enhance cross-border water security, addressing the critical challenges of water scarcity and cooperation to secure equitable access to water for all.

## **10:45 – 11:00    Global energy by 2030**

### **Energy Talk**

The World Energy Outlook 2024 outlines a shifting energy landscape shaped by geopolitical risks, evolving market dynamics, and the rapid deployment of renewables. By 2030, low-emissions sources are expected to generate more than half of global electricity, while fossil fuel demand is projected to peak. However, the transition remains uneven, with policy and investment decisions often reinforcing existing inefficiencies. Key uncertainties include the pace of renewable adoption, growth in electric mobility and LNG demand, and the impact of AI, efficiency policies, and extreme weather on electricity demand. Driven by cost competitiveness and energy security, renewables are expanding faster than government targets, with wind and solar PV alone set to double their share to 30%. This shift presents challenges in integrating variable renewable sources while ensuring grid stability and reliability. How can we accelerate the momentum of clean energy, leverage economic drivers for growth, and address critical policy and infrastructure developments to ensure a sustainable energy future?

#### **Attendee insights:**

Discover how the rapid growth of renewable energy is reshaping the global power landscape and driving the shift toward a cleaner, more cost-competitive future. Gain insights into the challenges of integrating variable renewables into power grids, the economic forces fueling the transition, and the critical policy and infrastructure investments needed to ensure a secure, sustainable energy system by 2030.

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## 11:00 – 11:45 **Realising the ambition: tripling global nuclear energy capacity by 2050**

### Global Leadership Panel

The global push to triple nuclear energy capacity by 2050 is gaining significant momentum, with 31 countries now committed to this goal. Nuclear energy is anticipated to play a vital role in tackling climate change, currently accounting for 9% of global electricity and preventing 2.1 billion tonnes of CO2 emissions annually, according to the World Nuclear Association (WNA). However, achieving this vision will necessitate overcoming significant challenges, including securing the \$100 billion in annual investments highlighted by the International Energy Agency (IEA), streamlining regulatory frameworks, and building public trust in nuclear safety. Enhancing collaboration among governments, investing in next-generation technologies such as small modular reactors (SMRs), and fostering global knowledge networks are crucial for unlocking nuclear energy's potential as a cornerstone of a sustainable, low-carbon future.

#### Attendee insights:

Explore how tripling nuclear energy capacity by 2050 can become a reality through innovative investments, streamlined regulations, and enhanced public confidence. Learn the strategies that will ensure nuclear energy plays a central role in the global transition to a sustainable energy future.

## 11:45 - 12:30 **Advancing the desalination agenda, towards water security**

### Global Leadership Panel

As global water demand continues to rise, with freshwater resources becoming increasingly strained, desalination technologies are playing a significant role in advancing water security, particularly in regions facing severe water scarcity, such as the Middle East. Once considered a critical solution to freshwater shortages, desalination has now become an even more essential strategy as nations explore sustainable methods to secure their water supply. The desalination market is expanding rapidly, with countries focusing on innovative alternatives to meet growing water demands. However, challenges such as high energy consumption, brine disposal, and substantial capital investments remain. Despite these hurdles, advancements in desalination technologies, such as reverse osmosis, multi-effect distillation, and emerging innovations like membrane distillation, are making processes more energy-efficient and environmentally sustainable. Furthermore, nuclear desalination is gaining traction as a low-carbon alternative to conventional methods. By integrating renewable energy sources like solar and wind into desalination projects, the reliance on fossil fuels is minimised, and carbon footprints are reduced, paving the way for sustainable, long-term water security solutions.

#### Attendee insights:

Discover how advanced desalination technologies, fueled by renewable energy, overcome challenges and how cross-industry collaboration is key to ensuring a sustainable water future in the face of global water scarcity.

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**12:30 - 13:15** **Is standardisation a pathway to resilient clean energy supply chains?**

## Global Leadership Panel

IRENA estimates that to meet the 1.5°C climate target by 2030, the world needs to invest \$720 billion annually in power grids and \$1,550 billion in renewable energy. In September 2024, leading utility companies in the Utilities for Net Zero Alliance (UNEZA) announced plans to invest over \$116 billion each year in clean energy and grid infrastructure. This investment aims to accelerate electrification and transform power systems. By 2030, UNEZA partners plan to increase their renewable portfolios by 2.6 times and modernise grid infrastructure. It is crucial to enhance the sustainability of clean energy technologies throughout the entire lifecycle—from sourcing and manufacturing to transportation and installation. Additionally, implementing mandates for harmonised international standards for critical equipment will promote interoperability and streamline supply chains, ensuring greater efficiency and reliability in the transition to clean energy. A collaborated global effort will be needed to deliver the committed energy transition targets.

### Attendee insights:

Gain insights into strategies for overcoming barriers, fostering collaboration between utilities, OEMs, and policymakers, and ensuring that supply chains can support the rapid scale-up of clean energy technologies needed for advancing climate action.

**13:00 – 14:00** **Lunch & Networking**

 **Delegate Lunch Area, Hall 3**

**14:00 – 14:30** **Powering a customer-first utility in a transitioning energy mix**

## Industry Dialogue

As the energy transition accelerates, utilities must navigate a complex landscape—balancing the shift to renewables with the need for reliability, affordability, and customer-focused innovation. With rising prices, security concerns, and decarbonisation efforts, consumers are more engaged than ever, transforming into active participants in the energy ecosystem. Utilities is redefining customer relationships through digitalisation, demand-side management, and smarter grid solutions. According to McKinsey, with global investment in digital infrastructure for utilities projected to exceed \$300 billion by 2030, the industry is primed for a customer-driven transformation. By focussing on incentivising energy conservation and leveraging technology we can enhance resilience, sustainability and revolutionise customer experience.

### Attendee insights:

Gain insights into how utilities can modernize aging infrastructure, enhance customer engagement, and leverage digital transformation to drive efficiency and competitiveness. Discussions will highlight key investment strategies and regulatory considerations, shaping the future of the sector.

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14:30 – 15:00

### Natural gas: evolving its role from energy transition to a low carbon energy future

#### Industry Dialogue

Demand for natural gas is growing globally, offering a lower carbon alternative to oil and coal particularly in power generation as a balancing to intermittency of renewable energy sources. As a foundational component in a transitioning and multi-faceted global energy system, natural gas has the advantage of being a commercially scaled energy source that brings with it a lower carbon profile to nations seeking to transition away from coal. For utilities, its flexibility in complementing renewable energy sources, combined with advances like smart grids, energy storage, and mechanisms such as 'linepack', ensures grid stability and resilience. Global collaborations, such as the EU's smart grid initiatives and U.S. partnerships, are further accelerating the development of adaptable, future-ready infrastructure. However, while natural gas remains critical today in balancing the priority of energy security with climate ambitions, its long-term role in a low or no carbon energy future will be influenced by factors such as renewable energy growth, emissions agendas, policy and investment shifts, and advances in carbon management technology.

#### Attendee insights:

Discover how natural gas is revolutionising utilities by ensuring grid stability and bridging the gap between renewable energy and reliable power. Gain exclusive insights into its growing demand, its crucial role in the energy transition, and how global collaborations are shaping a resilient, sustainable energy future.

15:00 – 15:30

### Maximising the potential of generative AI for power sector organisations

#### Industry Dialogue

The power sector is entering a transformative era, with generative AI set to revolutionise operations through its ability to rapidly process vast amounts of data, support decision making and identify patterns. Early adopters, including 16% of the top 25 utilities, are harnessing this technology to tackle challenges in grid management, resource planning, cost optimisation, and sustainability by optimising power distribution, improving electricity demand forecasting, and enhancing operational efficiency through predictive maintenance and automation. However, organisations must assess where generative AI can best integrate with their digital strategies, decide whether to adopt off-the-shelf solutions or invest in customised solutions, and address challenges such as data bias, privacy, safety, and governance to ensure responsible and secure implementation, maximising the benefits generative AI can bring.

#### Attendee insights:

This session will examine how utilities can align AI integration with their digital strategies, whether by adopting existing tools or exploring innovative solutions. Attendees will also gain insights into tackling key challenges such as data bias, privacy, safety, and governance, ensuring responsible and secure implementation of AI technologies.

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**15:30 - 16:00**

## **The next frontier: revolutionising water infrastructure with smart innovation and collaboration**

### **Industry Dialogue**

Technological innovations are key to modernising water infrastructure. Global water threats, like droughts, pollution, and climate change, are intensifying and by 2030, freshwater demand may outstrip supply by 40% (World Economic Forum). Emerging technologies, such as IoT and AI, can reduce losses, optimise distribution and enable early leak detection and real-time monitoring. Collaboration among utilities, tech providers, and governments is essential to scale solutions and integrate new water management technologies to address the growing challenges of water scarcity and increasing demand. The increasing demand for water infrastructure repair technologies underscores the urgent need for investment in modernising and future-proofing water systems to meet these challenges.

### **Attendee insights:**

Understand from industry leaders how to enhance the resilience and efficiency of water infrastructure, leverage emerging technologies, and the vital role of collaboration between governments, and private sectors.

**16:00 – 16:30**

## **Low carbon and green hydrogen: navigating challenges to open opportunities**

### **Industry Dialogue**

Hydrogen is increasingly seen as a low-carbon solution for balancing supply and demand in renewable energy systems through energy storage and grid stabilization. According to the International Energy Agency (IEA), reaching 50 million tons of green hydrogen production by 2030 is crucial for meeting global net zero goals. However, the low-carbon and green hydrogen markets are still in their early stages and scaling them up requires solving significant challenges including high production costs, infrastructure requirements, storage complexities, and developing a reliable supply chain. Utilities face challenges like high production costs, the need for significant infrastructure investments, and technological hurdles. As costs decrease and technologies mature, low-carbon and green hydrogen is expected to play an increasingly important role in the utility sector's transition to a cleaner energy future.

### **Attendee insights:**

Discuss actionable insights and real-world strategies that are overcoming the challenges of scaling green hydrogen, revolutionising the utilities sector, driving decarbonisation, and creating pathways toward sustainable energy systems.

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**Wednesday, 28 May 2025**

 **CONFERENCE HALL A**

**16:30 - 17:00**    **Amplifying the impact of energy efficiency, the first fuel in energy transition**

### Industry Dialogue

Energy efficiency is key for sustainable development. It provides environmental and economic benefits while helping to reduce CO2 emissions quickly and affordably. Fatih Birol from the IEA calls energy efficiency the “first fuel” in clean energy transitions. It is the fastest and cheapest way to cut emissions, improve energy security, and support a fair energy transition. To meet climate goals, we must double the global pace of energy efficiency this decade. The UAE has made this a priority through its National Demand Side Management (DSM) Programme. This aligns with sustainability goals to optimise resources, lower consumption, and promote economic growth. Together, efficiency, electrification, behavioural change, and digitalisation will lower global energy intensity and speed up the energy transition.

### Attendee insights:

Attendees will gain insights into the critical role of energy efficiency in sustainable development. Explore how initiatives like the UAE’s National Demand Side Management (DSM) Programme are driving progress in energy optimisation, resource reduction, and economic growth, while supporting the global energy transition.

## MINISTERIAL PANEL

Tripling renewable energy capacity: from ambition to action

Moderator

**Ferdinand Varga**

MD & Senior Partner  
Boston Consulting Group (BCG)

**Francesco La Camera**

Director General,  
International Renewable Energy Agency (IRENA)

**H.E. Nurmammet**

**Nurmammedov**

Deputy Minister of Energy  
Turkmenistan

**H.E. Dr. Adrian Băzăvan**

Foreign Affairs Adviser, Ministry of Energy,  
Romania



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**Topics in focus: Finance, Digital Transformation, Carbon Markets, Talent Development**

**10:00 - 10:45**

## **Redefining the future of the water-energy-food nexus through technology advances**

### **Global Leadership Panel**

The growing demands on water, energy, and food systems are reshaping how utilities approach resource management. By 2050, the global population is expected to require a 60% increase in food production, while energy consumption is expected to rise by 80%, and water demand, in developing countries, is expected to climb by 55% by 2025. Agriculture, which consumes over 70% of global freshwater, is a major driver of these pressures. By integrating renewable energy, utilities can improve grid resilience, sustainability and efficiency, optimising resource use across the water-energy-food nexus. Smart grid solutions enable real-time monitoring and predictive management, allowing utilities to balance energy supply and demand while minimising waste. Furthermore, data-driven insights support decisions that help utilities to optimise water and energy distribution, reduce carbon footprints, and establish a sustainable approach to managing interconnected resource needs for a growing global population.

#### **Attendee insights:**

Gain insights into how smart grids, renewable energy, and real-time data empower utilities to optimise resource management, reduce carbon footprints, and build a sustainable future amidst growing global demands.

**10:45 – 11:30**

## **Catalysing clean energy finance and investment to deliver energy transition at a global scale**

### **Global Leadership Panel**

Global clean energy investment has nearly doubled in the past decade. Yet, it still falls short of what's needed to meet climate targets. According to IRENA, we need \$35-44 trillion in clean energy finance by 2030 to achieve global decarbonisation. Green bonds, blended finance, and risk mitigation are essential to attract this investment. Effective policy frameworks, like carbon pricing and clean energy mandates, will also mobilise crucial funds. Continued R&D is vital to reduce costs for technologies like direct air capture and long-duration energy storage. An equitable energy transition is necessary for global decarbonisation. The IEA's roadmap states that developing economies need \$80-100 billion annually in concessional funding for clean energy. Today, only about 1% of this funding reaches these nations; the rest goes to developed countries. Governments, financial institutions, and the private sector must coordinate efforts to meet decarbonisation goals, drawing on the GCC's sustainable finance frameworks as models for broader energy transition efforts.

#### **Attendee insights:**

Gain insights into accelerating both private and public sector investments to close the climate adaptation financing gap, particularly in the Global South. Key discussions will focus on innovative risk allocation strategies, de-risking mechanisms, and how the GCC's sustainable finance frameworks can serve as models for broader energy transition efforts.

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# Thursday, 29 May 2025



## CONFERENCE HALL A

11:30 - 12:00

**Driving scale and responsible growth in carbon markets**

### Industry Dialogue

Carbon markets have the potential to make a positive and effective contribution to global climate action. However, to achieve their full potential, they must develop and grow while maintaining high standards of integrity and credibility. Establishing robust standards and principles, such as carbon principles and transparency and oversight, will be critical to building global market confidence. It will also be key to developing enhanced market infrastructure to handle large-scale trade volume and integrate technology to increase market efficiency and accountability. Market fragmentation must also be addressed to clear a pathway for unified market mechanisms, including harmonised registry data, a centralised registry, pricing transparency and core carbon reference contracts. As legal and regulatory frameworks are developed to define carbon credits and create clear guidelines and incentives for market participation, governments in the Middle East and Africa are advocating for more coordinated policies to expand the voluntary market. Scaling carbon markets responsibly would have the dual impact of effectively advancing emissions reductions and mobilising critical climate action financing.

#### Attendee insights:

Attendees will gain insights into how carbon markets can support net zero goals and the energy transition. Speakers will address the challenges of fragmentation, lack of standardisation, and transparency.

12:00 - 12:45

**Revolutionising urban living: Solutions for creating sustainable, low-carbon cities**

### Global Leadership Panel

Urban populations are soaring globally, placing immense pressure on infrastructure, energy, transportation, and waste systems. As urbanisation continues to accelerate, solutions are urgently needed to accommodate exponential growth. The integration of smart mobility, modernised energy grids and storage, and renewable energy sources, complemented by data analytics platforms, offers a powerful pathway to resilient, low-carbon cities with reduced emissions, and optimised energy use and urban mobility. By enhancing grid resilience, cities can unlock unparalleled resource efficiency while minimising waste. AI-powered transportation systems will not only ease congestion but also improve air quality and reduce fossil fuel reliance. Meanwhile, innovations in waste management, integrated with digital technologies, will optimise recycling processes and ensure that urban areas manage resources more sustainably. Together, these innovations will create a sustainable, connected, and forward-thinking urban environment.

#### Attendee insights:

Discover how integrating renewable energy, smart mobility, and waste management solutions can transform urban living into a more sustainable, efficient, and resilient future. Explore actionable strategies for building low-carbon, resource-optimised cities.

13:00 - 14:00

**Lunch & Networking**

**Delegate Lunch Area, Hall 3**

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## 14:00 - 14:45 **From concept to commercialisation: achieving scale for critical climate tech**

### **Global Leadership Panel**

Innovation and technology hold the key to speeding up decarbonisation and energy transition, taking us towards a more sustainable future. According to McKinsey, existing climate technologies can mitigate up to 90% of projected 2050 man-made emissions, with 10% of this potential coming from commercially mature solutions. Climate technologies are vital for achieving a sustainable future, but they need multiple early-stage deployments to achieve commercial adoption. They also rely on project development expertise, community support, and proven commercial demand. Many technologies required for climate adaptation and mitigation, such as AI-driven solutions, face funding shortages that hinder their scalability. In the United States, the Inflation Reduction Act has encouraged wide-scale investment in the low-carbon energy economy, enabling clean technology investments to grow by 225% to \$303 billion since its enactment. Bridging the gap will require a combination of innovative financing mechanisms, enhanced regional collaboration, better regulatory frameworks, and other strategic actions.

#### **Attendee insights:**

Gain insights into how climate technologies can help mitigate emissions, the challenges of early-stage deployments, the strategies needed to overcome funding shortages, and scale AI-driven solutions for a low carbon future.

## 14:45 - 15:30 **Critical minerals: the key to energy transition or a pending bottleneck**

### **Global Leadership Panel**

By 2040, the demand for minerals in clean energy technologies could quadruple if the Paris Agreement goals are met. According to the IEA, in a net zero scenario, this demand could increase sixfold. Yet, today's mineral supply and investment plans are insufficient for the energy sector's transformation, risking delays or higher costs. The concentration of production and complex supply chains make them more vulnerable to disruptions, trade restrictions, or geopolitical issues in key producing countries. As critical minerals become more important in a decarbonising energy system energy leaders and policymakers must work together to respond to evolving market dynamics and competition as well as rising demand to ensure critical minerals remain a vital enabler for the transition to clean energy or rather than becoming a bottleneck.

#### **Attendee insights:**

Explore strategies to scale up supply chains for critical minerals, tackling shortages to prevent transition delays and competition for control over value chains. Insights will also focus on cutting resource intensity in mining, ensuring ethical sourcing, and promoting global collaboration to secure sustainable supply chains for an energy system that is decarbonising.

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# Thursday, 29 May 2025

📍 CONFERENCE HALL A

15:30 - 16:00 Navigating the energy sector's talent transition

## Industry Dialogue

As the energy transition accelerates, workforce dynamics are evolving to meet the needs of a clean energy economy. The International Renewable Energy Agency projects energy sector employment could reach 139 million by 2030, with 16 million workers moving into clean energy roles. Sixty percent of these new positions will require post-school training and reskilling, highlighting the importance of investing in strategic workforce development. The younger generation has considerable potential to contribute to the energy transition, both through participation in decision-making and by joining the skilled workforce in renewable energy, energy efficiency, and clean mobility sectors. Young people are increasingly playing a vital role in achieving energy goals and tackling climate change and energy transition. Utility-scale solar and wind are experiencing record investments and capacity additions, making up nearly 90% of new builds in 2024. However, energy companies are facing growing competition for talent, particularly in green skills, from sectors such as technology. To succeed, the sector must address critical skills gaps and redefine the employee value proposition.

## Attendee insights:

This session will explore leadership strategies for inspiring workforce engagement across demographics, fostering innovation, and scaling the “green” energy workforce to support ambitious climate goals.



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# Technical Conference

Energy transition and digital transformation are the key drivers in the water and power sector, shaping the future of the industry, highlighting a clear direction for success, and opening doors to new industry players.

The Technical Conference offers utilities industry professionals unprecedented access to the latest industry knowledge and research findings, technical expertise, new project developments, state-of-the-art technologies, and industry best practices.

Spanning the entire power and water value chain, the World Utilities Congress 2025 Technical Conference has been created after a thorough two-stage review by the Technical Committee, comprising 57 industry specialists. The conference features 110 industry experts speaking at 27 sessions across three days and covers power generation, transmission and distribution, water management, water sewage, district cooling, and customer engagement.

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**20**

Technical  
Categories



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Technical  
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# Technical Categories

## CATEGORY 1



Power generation

## CATEGORY 2



Energy storage and management

## CATEGORY 3



Grid modernisation and smart grids

## CATEGORY 4



Low carbon, alternative fuels, and renewable energy

## CATEGORY 5



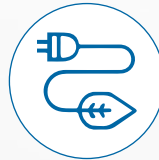
Hydrogen

## CATEGORY 6



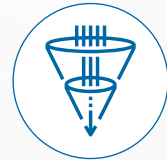
Nuclear energy

## CATEGORY 7



Energy transition, decarbonisation and environmental sustainability

## CATEGORY 8



Water supply and treatment

## CATEGORY 9



Water infrastructure and sustainability

## CATEGORY 10



District energy systems

## CATEGORY 11



Gas: processing, operations and technology

## CATEGORY 12



Energy markets, strategies and finance

## CATEGORY 13



Project management in utilities

## CATEGORY 14



Logistics and supply chain in utilities

## CATEGORY 15



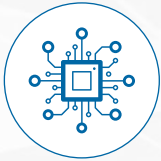
Critical minerals and rare earth

## CATEGORY 16



Future mobility and smart communities

## CATEGORY 17



Digital transformation and emerging technologies

## CATEGORY 18



Operational excellence and asset maintenance

## CATEGORY 19



Health, safety, and risk management

## CATEGORY 20



ESG (Environmental, Social, and Governance) in utilities

# The Utilities Club

## Connecting the industry's elite

The Utilities Club is an exclusive, invitation-only members club for senior decision-makers across the utilities sector, bringing together ministers, dignitaries, C-level executives, and industry leaders.

Designed as a hub for influential voices shaping the future of utilities, the club offers a space for members to connect, exchange insights, and engage in impactful dialogue.

The Utilities Club enhances the event experience for members, with premium amenities and a sophisticated environment for networking at the highest level. The Club provides tailored spaces for private meetings and discussions, including dedicated Ministerial meeting suites, allowing members to deepen partnerships and explore new opportunities in a private setting.



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In an exclusive and intimate setting, the Leadership Roundtables are a defining feature of the World Utilities Congress, bringing together the most influential leaders from across the global utilities sector to shape the industry's future. These high-level discussions convene policymakers, ministers, executives, and thought leaders to address the most pressing challenges and opportunities in power and water utilities.

At the core of the event, these roundtables foster open, impactful, and action-driven dialogue aimed at advancing the transition to resilient and sustainable utilities. With a focus on collaboration, the conversations are enriched by diverse expertise, generating tangible strategies and solutions to enhance global energy and water security. This **invitation-only** platform enables decision-makers to forge partnerships, explore pioneering innovations, and steer collective progress toward a sustainable and efficient future.



### Focused Discussions



### Collaborative Solutions



### Global Expertise



### Diverse Perspectives

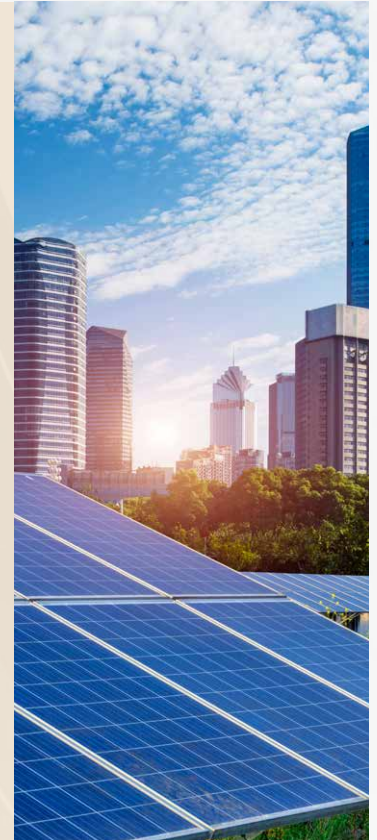
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# Nextgen Innovation Theatre

The global renewable power generation market demand is expected to grow at a compound annual growth rate (CAGR) of 7.9% from 2020 to 2027. This surge is driven by an escalating worldwide energy crisis and the urgent need for sustainable energy solutions, as conventional fossil fuels are increasingly replaced by cleaner alternatives such as wind and solar power.

The Paris Agreement has significantly bolstered this transition, prompting countries to commit to enhancing their adoption of renewable energy. As a result, renewable sources are becoming more efficient and cost-effective while playing a crucial role in reducing greenhouse gas emissions and minimising environmental impacts.

This theatre will bring together industry leaders to explore strategies for integrating renewables into energy systems, enhancing grid resilience, and advancing the energy transition. By focusing on emerging technologies and evolving regulations, it will empower stakeholders to drive innovation, shape sustainable practices, and lead the shift towards a cleaner, more resilient energy future.



## Themes in Focus

Nextgen Renewable Energy

Sustainable Safety Practices

Smart Transmission

Engaging the New Era Consumers

Modernising Distribution Networks

Regulating Clean Energy Transition

ESG & Sustainable Energy Future

Efficient Heating & Cooling Systems

LEARN MORE ABOUT THE INNOVATION THEATRES



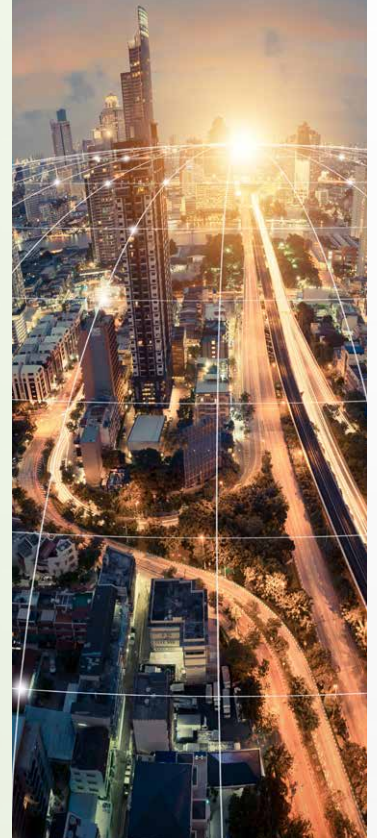
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# Cleantech Innovation Theatre

Over the last decade, the utilities sector in the Middle East has emerged as a key player in cleantech innovation, driven by national sustainability visions and significant investments. New industry leaders are shaping the region's energy resilience and competitiveness, yet challenges remain in scaling and operationalising clean technologies, particularly those from emerging players. With rising transition costs, infrastructure investment gaps, and global competition from markets like the US and China, the sector must prioritise deploying clean technologies at scale to advance climate action and energy security.

Globally, utilities are committing substantial resources to clean energy, with UNEZA partners, launched at COP28 under IRENA and UN Climate Change leadership, aiming to invest over \$116 billion annually in clean power and grid infrastructure. This renewed focus on cleantech reflects the urgency of addressing climate crises. Electrification is transforming key industries, including utilities, transportation, and energy, creating significant opportunities for ESG-driven innovations and investments.

The Cleantech Innovation theatre will bring together leaders to showcase the sector's critical role in advancing sustainable energy practices and driving decarbonisation efforts.



## Themes in Focus

Energy & Energy  
Storage Technologies

Investments &  
Partnerships

Circular  
Economy

Energy Efficient  
Utilities

Sustainable Water  
Management

Mobility

AI-Enabled  
Utilities

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# The Exhibition

The exhibition connects industry leaders, innovators, and solution providers, presenting cutting-edge technologies that address evolving utility sector demands.

Exhibitors gain direct access to a qualified global audience, fostering valuable connections with key decision-makers. The event highlights solutions that enhance operational resilience, sustainability, and the seamless integration of new technologies into utilities.

## Exhibition Sectors



**Generation**



**Transmission**



**Distribution**



**Water**



**Services**



**Mobility**



**Technology**



**Investments**

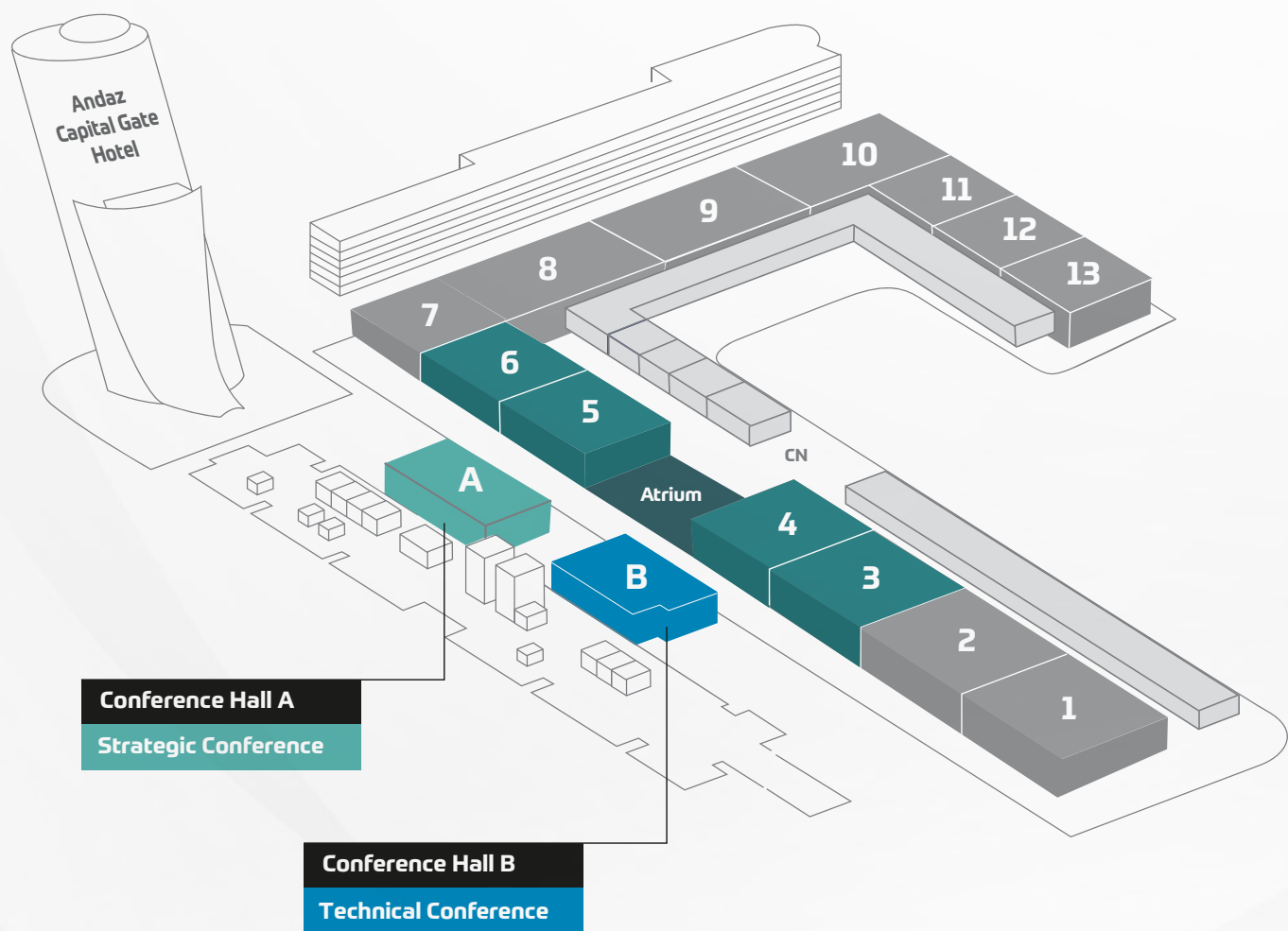
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# Venue Map



## ADNEC CENTRE ABU DHABI, UAE

-  Exhibition Halls  
Halls 3-6 and Atrium
-  Strategic Conference  
Conference Hall A
-  Technical Conference  
Conference Hall B



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27 - 29 MAY 2025

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Saudi Arabia

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